Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1.-11. (cancelled)

12. (currently amended) A method for producing an optically active alcohol, the method comprising:

~~contacting~~ providing a microorganism that expresses an oxidoreductase ~~with racemic alcohol to specifically oxidize either (S) enantiomer or (R) enantiomer in the racemate~~, wherein activity of the microorganism to regenerate an electron acceptor for the oxidoreductase ~~expressed by said microorganism~~ is enhanced by ~~the method comprising~~ culturing the microorganism in a culture medium comprising a concentration of dissolved oxygen that is at least 50% less than the oxygen concentration of the medium under oxygen saturation conditions; and

culturing the microorganism in a culture medium comprising (a) a racemic alcohol that is a substrate for the oxidoreductase and (b) a concentration of dissolved oxygen that is at least 50% less than the oxygen concentration of the medium under oxygen saturation conditions, during the period that the oxidoreductase is expressed, to specifically oxidize either an (S)-enantiomer or (R)-enantiomer of the racemic alcohol,

thereby producing an optically active alcohol.

13. (currently amended) The method according to ~~claim 10 or~~ claim 12, wherein the concentration of dissolved oxygen in (b) is 20% or less saturation.

14. (currently amended) The method according to ~~claim 10 or~~ claim 12, wherein the concentration of dissolved oxygen in (b) is 10% or less saturation.

15. (currently amended) The method according to ~~claim 10 or~~ claim 12, wherein the electron acceptor is selected from the group consisting of nicotinamide adenine dinucleotide (NAD+), nicotinamide adenine dinucleotide phosphate (NADP+), cytochromes, molecular oxygen and quinones.

16. (currently amended) The method according to ~~claim 10 or~~ claim 12, wherein the oxidoreductase is an alcohol dehydrogenase.

17. (currently amended) The method of ~~claim 10 or~~ claim 12, wherein the oxidoreductase is from *Candida parapsilosis*.

18. (currently amended) The method of ~~claim 10 or~~ claim 12, wherein the microorganism is selected from the group consisting of *Escherichia, Bacillus, Pseudomonas, Serratia, Brevibacterium, Corynebacterium, Streptococcus, Lactobacillus, Saccharomyces, Kluyveromyces, Schizosaccharomyces, Zygosaccharomyces, Yarrowia, Trichosporon, Rhodosporidium, Hansenula, Pichia, Candida, Neurospora, Aspergillus, Cephalosporium* and *Tricoderma*.

19. (previously presented) The method according to claim 18, wherein the microorganism is *Escherichia coli*.

20. (currently amended) The method according to ~~claim 10 or~~ claim 12, wherein the microorganism is genetically engineered to express a foreign gene encoding ~~an~~ the oxidoreductase.

21. (new) A method for producing an oxidized form of an organic compound, the method comprising:

providing a microorganism that expresses an oxidoreductase, wherein the microorganism's ability to regenerate an electron acceptor for the oxidoreductase is enhanced by culturing the microorganism in a culture medium comprising a concentration of dissolved oxygen that is at least 50% less than the oxygen concentration of the medium under oxygen saturation conditions, wherein the microorganism is selected from the group consisting of *Escherichia, Bacillus, Pseudomonas, Serratia, Brevibacterium, Corynebacterium, Streptococcus, Lactobacillus, Saccharomyces, Kluyveromyces, Schizosaccharomyces, Zygosaccharomyces, Yarrowia, Trichosporon, Rhodosporidium, Hansenula, Pichia, Candida, Neurospora, Aspergillus, Cephalosporium* and *Tricoderma*; and

culturing the microorganism in a culture medium comprising (a) an organic compound that is a substrate for the oxidoreductase and (b) a concentration of dissolved oxygen that is at least 50% less than the oxygen concentration of the medium under oxygen saturation conditions, thereby producing an oxidized form of the organic compound.

22. (new) A method for producing an oxidized form of an organic compound, the method comprising:

providing a microorganism that is genetically engineered to express a foreign gene encoding an oxidoreductase, wherein the microorganism's ability to regenerate an electron acceptor for the oxidoreductase is enhanced by culturing the microorganism in a culture medium comprising a concentration of dissolved oxygen that is at least 50% less than the oxygen concentration of the medium under oxygen saturation conditions; and

culturing the microorganism in a culture medium comprising (a) an organic compound that is a substrate for the oxidoreductase and (b) a concentration of dissolved oxygen that is at least 50% less than the oxygen concentration of the medium under oxygen saturation conditions, thereby producing an oxidized form of the organic compound.

23. (new) A method for producing an optically active alcohol, the method comprising:

providing a microorganism that is genetically engineered to express a foreign gene encoding an oxidoreductase, wherein the microorganism's ability to regenerate an electron acceptor for the oxidoreductase is enhanced by culturing the microorganism in a culture medium comprising a concentration of dissolved oxygen that is at least 50% less than the oxygen concentration of the medium under oxygen saturation conditions; and

culturing the microorganism in a culture medium comprising (a) a racemic alcohol that is a substrate for the oxidoreductase and (b) a concentration of dissolved oxygen that is at least 50% less than the oxygen concentration of the medium under oxygen saturation conditions, such that the oxidoreductase specifically oxidizes either an (S)-enantiomer or (R)-enantiomer of the racemic alcohol, thereby producing an optically active alcohol.

24. (new) A method for producing an optically active alcohol, the method comprising:

providing a microorganism that expresses an oxidoreductase, wherein the microorganism's ability to regenerate an electron acceptor for the oxidoreductase is enhanced by culturing the microorganism in a culture medium comprising a concentration of dissolved oxygen that is at least 50% less than the oxygen concentration of the medium under oxygen saturation conditions, wherein the microorganism is selected from the group consisting of *Escherichia, Bacillus, Pseudomonas, Serratia, Brevibacterium, Corynebacterium, Streptococcus, Lactobacillus, Saccharomyces, Kluyveromyces, Schizosaccharomyces, Zygosaccharomyces, Yarrowia, Trichosporon, Rhodosporidium, Hansenula, Pichia, Candida, Neurospora, Aspergillus, Cephalosporium* and *Tricoderma*; and

culturing the microorganism in a culture medium comprising (a) a racemic alcohol that is a substrate for the oxidoreductase and (b) a concentration of dissolved oxygen that is at least 50% less than the oxygen concentration of the medium under oxygen saturation conditions, such

that the oxidoreductase specifically oxidizes either an (S)-enantiomer or (R)-enantiomer of the racemic alcohol, thereby producing an optically active alcohol.

25. (new) The method according to claim 21, wherein the concentration of dissolved oxygen in (b) is 20% or less saturation.

26. (new) The method according to claim 22, wherein the concentration of dissolved oxygen in (b) is 20% or less saturation.

27. (new) The method according to claim 23, wherein the concentration of dissolved oxygen in (b) is 20% or less saturation.

28. (new) The method according to claim 24, wherein the concentration of dissolved oxygen in (b) is 20% or less saturation.

29. (new) The method according to claim 21, wherein the concentration of dissolved oxygen in (b) is 10% or less saturation.

30. (new) The method according to claim 22, wherein the concentration of dissolved oxygen in (b) is 10% or less saturation.

31. (new) The method according to claim 23, wherein the concentration of dissolved oxygen in (b) is 10% or less saturation.

32. (new) The method according to claim 24, wherein the concentration of dissolved oxygen in (b) is 10% or less saturation.